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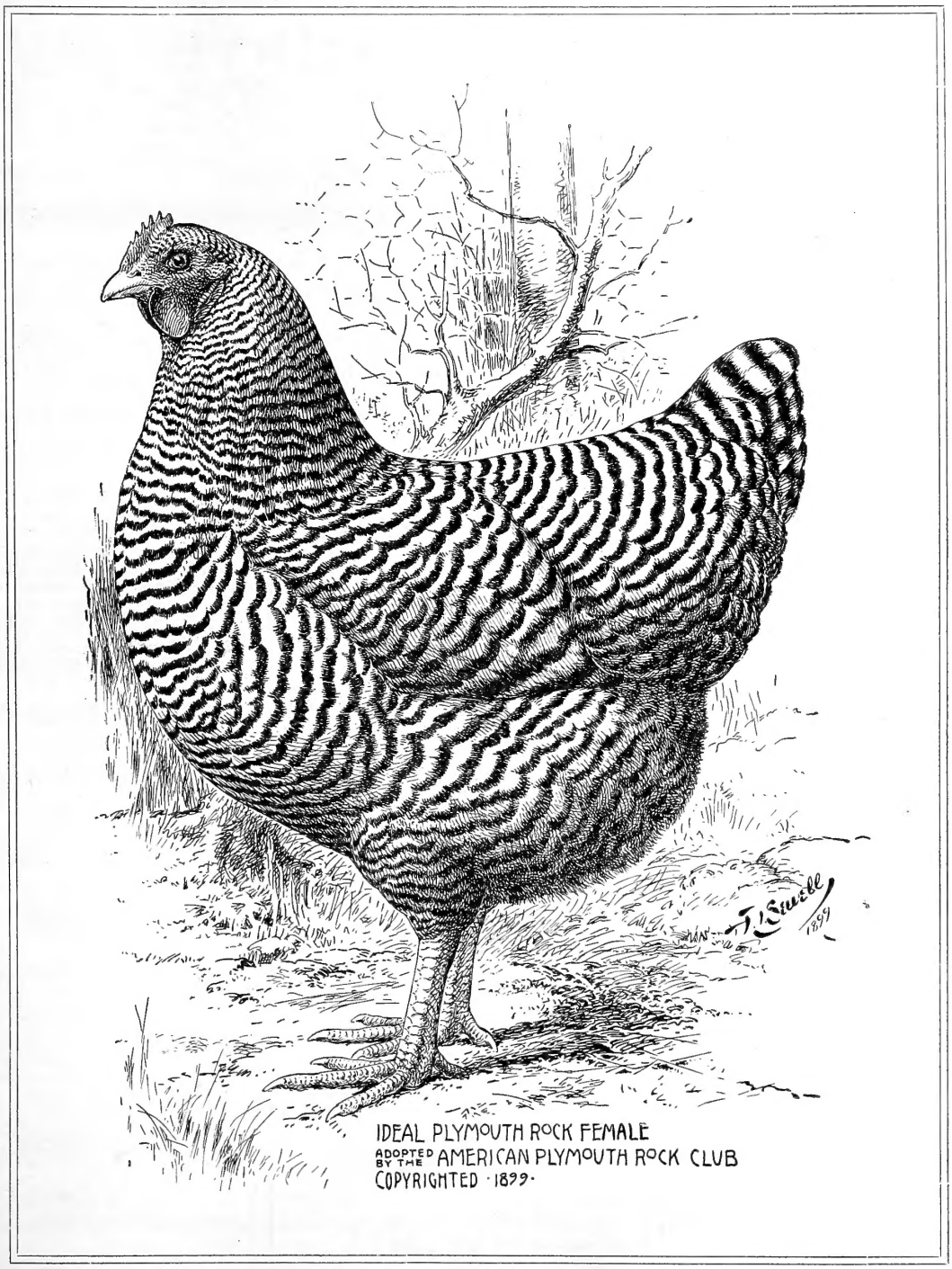
The Poultryman and Pomologist.

DEVOTED TO PRACTICAL POULTRY AND FRUIT CULTURE.

Vol. I. South Freeport Maine, November, 1900. No. 12.



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LANGSHANS. Prize winning Black Langshans. Winners at Boston, Worcester, Amesbury and all leading shows. Stock for sale. Eggs $2.00 per 15. Fair hatch guaranteed. H. J. MANLEY, Jacobs Street, Maplewood, Mass.

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Have just won 1st. Pen, 1st. Chicks, 2nd. Fowls at the great Nashua, N. H. Fair. Also at the Oak Park Fair, Greenfield, N. H., 1st. Fowls, 1st. and 2nd. Chicks. Choice Stock For Sale. C. N. PAIGE, Francestown, N. H.

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Cocks or cockerels for sale from first prize winners, Arnold strain. Stock purchased of E. M. Deering, Biddeford, Maine. R. I. Reds also. All first-class stock at reasonable prices.
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BANTAMS.

I WILL EXCHANGE Buff or White Cochin, Golden or Silver Seabright Bantams for Angora Kittens or Belgian Hares, or sell at reasonable prices. Send for free circular of New England's largest Bantam yards. Clough's Bantam Book, 15 cents. W. W. CLOUGH, Medway, Mass.

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Big mail for Poultrymen. Insert your name in our Poultry Directory and you will receive poultry papers, fruit papers, catalogues, etc., every day. All we ask is ten cents, silver. POULTRY DIRECTORY CO., Dept. 2, Box 7 3, Goshen, Ind.

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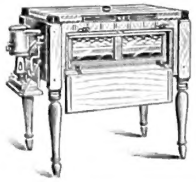

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The Poultryman and Pomologist.

DEVOTED TO PRACTICAL POULTRY AND FRUIT CULTURE.

Vol. I. South Freeport Maine, November, 1900. No. 12.

A Visit to a Maine Poultry Farm.

(Written for the Poultryman and Pomologist.)

The name of W. H. Scovil is familiar to the readers of THE POULTRYMAN AND POMOLOGIST, both as an advertiser of standard bred fowls and as a contributor of practical information on poultry topics. By appointment we spent a part of a cold October day at his farm. Cold as it was his fowls were not huddled together in sheltered places, but showed their vigor by foraging over acres and acres of field and woodland. Foxes cannot be very numerous in East Lebanon, judging by the number of chicks and hens roaming in every direction. At the time of our call the stock had been reduced quite a good deal by sales of breeding stock, but 500 or more were still on hand.

During the past five years Mr. Scovil has spent a good deal of time and money in establishing himself as a skilled breeder of high class poultry. By square dealings he has established a trade in breeding stock and eggs for hatching that he would rather have than $1000 in the savings bank. This does not include his stock but just the trade alone. He has made many satisfactory distant shipments. Has sent eggs to the state of Washington and a 60 per cent hatch was reported. He has recently made a shipment of White Wyandottes to Texas.

Although it's slow getting a start he considers the breeding of standard bred poultry for breeding purposes and the show room a good business to engage in, but it requires close attention. He says buyers are shy of new breeders. Again, the beginner does not understand answering his correspondence to advantage; he does not know what quality of birds are wanted, hence he will lose sales by asking too high a price and also by not asking enough. Experience will teach him much in this direction. Advertising is costly but it pays. Also winning prizes at the shows is a great help in increasing sales. He thinks every breeder should have the Standard to refer to in breeding. With this book, attending shows and seeing the fowls judged, one will soon get to know a good specimen when he sees it. For a number of years Mr. Scovil has been breeding buff varieties of several breeds, and finds the demand for that color to increase each year. He is now breeding Buff Cochins and Bantams of the same breed, Buff Plymouth Rocks — being a prominent member of the Buff Rock Club — White Wyandottes, and Houdans.

His Cochins are the best of winter layers, and continue to lay well during the summer, and commence laying when six or seven months old. As chickens they are not very plump, being slower maturing than some breeds. This is a very tame breed.

The Buff Rocks are an excellent fowl with him and there is a great demand for them.

A freak in the Houdan line was shown. This hen was of good color as a pullet. When she moulted she came out quite light in color and when she moulted the second time ehe was white except a few "ticks." Mr. Scovil says the Houdans will lay more eggs during the period from late winter until moulting time than any other breed he ever kept. They are among his first choice as a table fowl. He says it may be imagination but the meat seems to have a better flavor. Has had no trouble with this breed getting cold.

Experience has taught Mr. Scovil how to build a poultry house, and that is just opposite from what most houses are built. Instead of having the low part of the building towards the North he has the roof slope to the South. This gives the roof a much better chance to dry off, and the snow cannot last long on it, hence he gets much drier and warmer quarters for the hens. Earth floors are used. Small yards are on the south side of the houses and larger one at the rear. The small yards are for late fall and early spring use. They are afterwards sown to rape. Mr. Scovil is another Maine poultryman who has a very high opinion of rape. The past summer he cut the rape and made the mash of equal parts of corn meal and shorts, and an equal bulk of rape. His hens never did better. He uses beef scraps for animal food and considers a small quantity of linseed meal very beneficial in the mash. He says clover meal quickly helps the egg shells.

E. T. PERKINS.

Fall Shows Again.

(Written for the Poultryman and Pomologist.)

I was glad to find that my article in the September number, "Fall Showing and Fall Shows," had called out some criticism, for criticism and the attending discussion is always valuable — and especially so when prompted by the proper spirit.

In making my copy I wrote what my observation has led me to believe is the truth and it was written with special reference to new breeders, who, I know, usually expect more remuneration from showing at fall fairs than they get, and are often disheartened by the failure of such remuneration to appear. But whatever may be said pro or con, the fact remains that very few birds, either old or young, exhibit anything like their true quality in the fall, and it is not at all unusual for a very fine specimen to be beaten by a bird of decidedly inferior quality for this reason. This fact allows me to place but little value upon a winner at a fall show if I must estimate him by that alone. On this account I am convinced that the fall shows, even the latest and biggest, cannot be put on a par with our winter shows, unless we overturn our present system of hatching and rearing.

My attention was called to an article in the October number by C. Lawrence, of Tashmuit Farm. Mr. Lawrence takes very strong ground in opposition to my article, and suggests the possibility of my being mistaken in a very pointed manner. Yet I can find very little to refute my statement made in September, and a careful perusal of my article will show that I made a very clear distinction between that class who could make something at fall showing and those who couldn't and plainly stated that my article was to cast no reflections upon the more progressive associations.

The statement by Mr. Lawrence that a party sold at a fall show a stock of 300 birds for more than he could have obtained at a winter show is certainly an arbitrary statement, impossible to prove and therefore carries no weight.

As to the statement that a person winning at the fall shows mentioned gaining as much reputation as he would by winning at Boston or New York, I have nothing to say except the claim is wholly unsupportable. Every one should know that those two shows are in a class by themselves.

I believe that very few who are in a position to know would undertake to support the claim of equality, to say nothing of superiority, of the fall show to the winter show as a benefit to the industry or to the individual exhibitor.

H. A. NOURSE.

Going Into Winter Quarters.

(Written for the Poultryman and Pomologist.)

As cold weather comes on don't fail to give proper attention to the winter quarters for the stock. Work on and about the building can be done much better, easier and cheaper now than later when the first blustering snow storm compels us to better protect our birds.

Although I believe in preparing for winter early I have found it advisable to keep the young stock out in the roosting coops as late as they can be comfortable there and while the grass remains green. If the coops are protected from the wind and are on dry land the chicks can remain in these slat-front structures in quite cold weather, breathing pure, health-giving air which will fit them to better withstand the confinement of the winter season.

A word to those who are late about getting fresh sand into the buildings: Be sure that it is thoroughly dry before putting birds into the houses, as damp sand is a sure producer of colds, which unfit a bird for its winter's work.

After getting in the stock don't shut the windows at once but close them gradually as winter advances and the cold strengthens, never closing them tight except in very severe weather Keep out all drafts but make sure of plenty of pure air. H. A. NOURSE.

Large Poultry Plants.

Why is not every township in this country able to boast of its poultry plant of a thousand hens? Why do so many persons keep a dozen hens while so few keep large numbers?

The above has been asked hundreds of times, and for years back. Let us consult together and try and get at the causes and obstacles.

In the first place let us select a man with a dozen fowls, or even twenty-five hens. How much land does he give them? If running at large the reply might be that they had four acres, or ten

acres, as the case may be. The next would be to put a question in "single rule of three," as the old-time arithmetics used to have it, as follows: "If ten acres will keep 20 hens, how many acres would 1,000 hens require?"

What we wish to illustrate is that a great many persons keep small flocks and do not know how much land the hens occupy, but when they propose to keep large flocks they measure the ground not by acres, but in square feet. They will then attempt to keep hundreds of birds on one acre without even calculating the space they have given one small flock perhaps for years.

Then there is the man who has kept a dozen hens on a town lot 50x100 feet (one-eighth of an acre). Of course he knows how many hens he can keep on an acre, for he can sit down and figure it out, as he has already managed one dozen hens in a yard. And so he has, and he knows every hen in the flock, knows which is the heaviest feeder, knows which is the best layer, the best sitter, the hardiest, the most delicate, and they will eat from his hand, fly upon his shoulder, and every one of the family knows each member of the flock. Then there are the table scraps and the choicest of foods. The color, size and shape of the eggs layed by any one of the hens are known. Such a flock is a pleasure and what is called "work" is not considered at all.

But being so successful the owner of a dozen fowls goes into the thousands. He lays off his yards into 25x100 feet sizes (so as to save space) and he builds long rows of houses (for his convenience), and he thinks he will put 20 hens in a yard. Later, he thinks that 50 hens would not be too many in a flock. No use in wasting valuable space. Now he calculates and finds that he has 16 yards on an acre and 50 hens in each, making a total of 800 hens on an acre.

But he finds that table scraps do not help out with 800 hens, that he does not know much about each hen, that for some reason he has a big sick list, that some flocks lay fewer eggs than others, that there is plenty of "work" and very little "pleasure," that the hens are very peculiar in their preferences, that the roosters fight and kill each other, and that there is a vast difference between 20 hens that are pets and 800 hens on one acre that require work from early morning until late at night.

The fault in such cases as the above is that of expecting to do too much on too little space. It is better to have smaller flocks and more ground. It is better to keep a hundred hens that pay on one acre than to keep twice as many and get no eggs. The attempt to outrage nature and produce unnatural conditions will result in failure unless one knows by experience how to manage to a nicety.

To keep large numbers do not go out and buy hens and thus buy disease and lice, but increase the flocks every year and learn as the flocks become larger. Do not build a poultry house for your convenience, but for the hens. Do not calculate how to save space and work, but how to get eggs. Plenty of eggs will pay for more space and also for help. Ten hens that lay are worth more than a hundred unprofitable ones. Practice, read, learn, and do not be in a hurry. You cannot go on a farm, with any kind of stock, and make it pay at the start, nor will you crowd ten cows on one acre. You will wait for calves, lambs, pigs, and colts to come and grow, and it may take four years before your colt becomes a horse. Poultry will pay, but you cannot discover a gold mine at it the first year. The kind of man is also one of the prime factors to success.—*Poultry Keeper.*

Getting Eggs in Winter.

In many cases the failure to get plenty of eggs during cold weather is due largely to lack of proper care and food; but there is considerable in the selection of the stock in the fall to begin with. With those who keep from one to two hundred fowls more or less are sent to market in the fall, on account of not having accommodations to winter them, and when this clearing out is done is the proper time to select out the birds for winter layers. For this purpose I would keep the early molting hens that are not too old. Among the Rock and Wyandotte class I would not care to keep them longer than in the fall after they are two years old, and the Leghorn class not after three years of age,—unless they were known to be something extra in the way of egg producers, fancy points, etc. At any rate I would be careful to select the cream of the whole lot. And from this year's breeding I would pick out the early hatched pullets, taking care to select the best.

The selection of the stock for keeping over is important, and is the starting point in securing plenty of eggs through the winter, for without hens that, with good treatment, can be depended upon to lay eggs, little will come from all the other work. The keeping over of hens that are past their usefulness as layers, and the keeping of too many roosters, add to the expense of keeping the flock, while they add nothing to the income. Careful and close attention in culling out and marketing these will help materially in making the poultry pay. After hens are secured that can be depended upon to lay with the right kind of care, the next important point is to provide comfortable quarters for them.

We may be ever so careful in selecting our winter layers, and take every care in feeding them, they will not do their best unless they are kept warm during the cold weather, and a well-built and comfortable house is the first essential in providing warmth. The building need not be expensive. The main thing is to keep dry and have warmth. On the farm it seems to be an exceptional case where the farmer cares to go to any considerable expense in building a poultry house, yet as with other stock, if they are worth keeping at all they are worth keeping in a way that will bring in a profit.

While the weather will permit giving the fowls full range, it will not be necessary to feed very heavy; they will be able to pick up a good part of their living, with the advantage of picking up a variety of food and at the same time get plenty of exercise. I consider wheat to be one of the best feeds for eggs that can be given, and can be made a leadingration. In severe cold weather I give plenty of whole corn at night for warmth (as I believe no grain will excel this for animal heat), then a light feed of warm mash in the morning. But in ordinary or mild winter weather I prefer to feed most of the soft food for the evening mess. Then the hens are prepared to commence work in the morning at once and will continue exercising throughout the day, which is very important with laying stock. For the main part of the feed through the day I give wheat, using some oats, barley, and buckwheat, to make up a variety, always keeping a good supply of grit before them. Crowding should be avoided in every case. If there is only room for thirty or forty head, better cull them down to that number rather than to keep more. With good birds to begin with, then warm roomy quarters and good feed and regular care, there should be plenty of eggs.—*V. M. Couch, in Farm Poultry.*

Fitchburg Poultry Show, Dec. 18-21, 1900.

The Ad. Agt. of the Fitchburg Poultry Show, Mr. I. C. Greene, Leominster, Mass., reports that a large list of inquiries for the premium list is being made up and new applications are coming every day. Some breeders are so well pleased with the work of the Fitchburg Show that they have offered special prizes in the varieties they breed for the purpose of calling out a large class at this show. The Fitchburg Poultry Show will have many more entries this year than in former years, as they offer such valuable inducements to exhibitors, besides the valuable special premiums offered, the free advertising that can be had through this show is worth much to all who participate. For the benefit of all exhibitors, the society will publish a full list of awards and in addition, will give the name and address of all exhibitors with breeds entered and the score of every bird in the show. This list is free to exhibitors and will be mailed to any address in U. S. or Canada on receipt of 5 cents. Send a card to I. C. Greene, Box 703, Leominster, Mass., for premium list. It will tell you all about the show and you can get your birds in shape to compete for the large prizes.

Poultry Show Notes.

The Haverhill (Mass.) show will be held Dec. 12-15. It is one of the best shows in New England. For premium list apply to Geo. I. Davis, Secretary.

The Nashua Poultry and Pet Stock Association of Nashua, N. H., will hold their first annual exhibition Dec. 4-7, 1900. Competition will be open to the world. Substantial premiums will be offered on all classes of poultry, pigeons, and pet stock. Good accommodations and good attention to exhibitors and their exhibits will be furnished. C. W. Hoitt, President; J. F. Watson, Secretary Executive Board.

The Manchester (N. H.) show will be held Dec. 12-15, 1900. The judges are J. F. Watson, D. J. Lambert and Geo. P. Coffin. Write to W. B. Sanford, Manchester, for further particulars, premium list, etc.

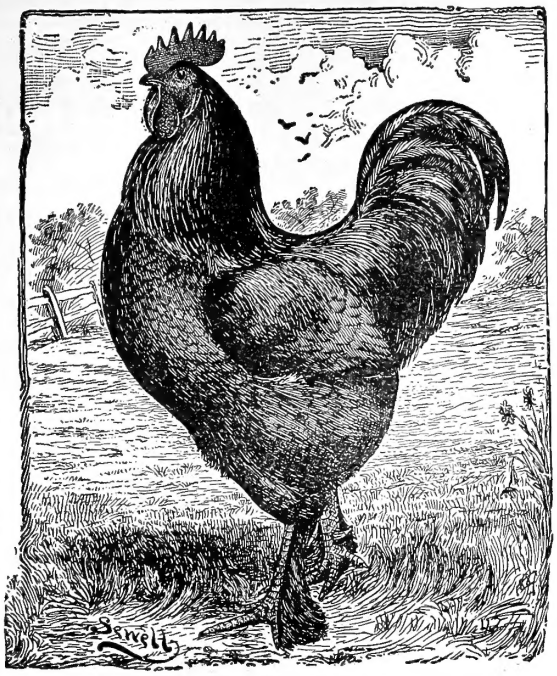
A Year's Subscription Free.

We are making a special offer of a yearly subscription to each *new* advertiser. No matter if the order is but for a single insertion of a Breeder's Card, the advertiser will get the paper a year if he asks for it when sending the advt. A forty-word advertisement four insertions and the paper a year for $1.00 gives big value for the money. The advt. will bring you customers. The paper will please you.

The Black Langshan.

(Written for the Poultryman and Pomologist.)

As the editor requests it I will write a few words in regard to one of the most beautiful and valuable breeds of all poultrydom, the noble Black Langshan. I have bred them for four years, so I know from experience something about them.



BLACK LANGSHAN COCKEREL.

There is much to be said in their praise and but little to be found against them.

SIZE.

This is one of their "*virtues*." They are a large-sized bird, above the average "so-called" general purpose fowls. As all know they belong to the Asiatic class, so the first thought would be that they were a large inactive fowl and one that would not attract the fancy. But not so; they are a most active fowl, in fact, it is hard to find one that would be more active than they are. Their activity makes them far ahead of others of the Asiatic class.

BEAUTY.

Here is one of their strong points. Beauty far ahead of any others, is their story. There may be a craze for some new color or variety but the shining black of the Langshan will never cease to attract the attention of lovers of a pleasing appearance in the color of fowls.

STYLE.

It is needless to say much in regard to the style of the Langshan. Any one who has ever seen them will say that a more graceful, stylish and showy bird does not exist. As far as perfection is, these birds are not far from it in style.

DISPOSITION.

Their disposition is of the most gentle nature. For pets they are unexcelled. Never wild if handled as all fowls should be. Picture a fowl that jumps on your shoulders, arms, or even in the pan when you go to feed them, and you have the Langshan.

APPEARANCE.

Combining size, beauty and style as they are in the Langshan, we have a fowl that for appearance is hard to beat. A fine appearance is a most valuable characteristic of any fowl, simply because people want a good appearing fowl, along with their other good qualities. For the average person appearance "cuts a great figure" in the purchase of a new variety or breed of fowls.

VALUE.

Last but not least their value is something above the average. The profit, which of course makes their value large, is by no means a small thing, in the hands of the person who gives proper care and the other requisites of successful breeding. Their good qualities especially make them valuable; without good qualities there would be no value. But for the Langshan they have both. Their value is really great.

OTHERS.

I might enumerate a few more of the characteristics of the Langshan which make them the favorites of many breeders:

Their adaption to any climate, a very fine one; their nature to bear confinement well which makes them especially valuable to the city person; good foragers, making them fine for the farmer.

Their endurance, both of cold and heat, which is truly a good quality; and their egg-laying qualities, some say they can't be beat for eggs. But for me they will give any other breed a close race. Naturally we wouldn't expect to find a large bird a good layer, but here we have them combined in the best possible way, a large bird and one that is a layer of a large number of eggs.

Now, I could go on and talk longer about the Langshan but I will stop. They are an ideal fowl and deserve a popularity equal if not greater than any other.

PERCY W. SHEPARD.

The Langshan.

To one who has bred the Langshan, premising of course that he has started with the real simon pure article, direct from the yards of a careful and reliable breeder, it is unnecessary to expatiate upon the Langshan's merits. He is most emphatically successful in winning his way to his owner's heart, both on account of his beauty and his usefulness.

The advent of the Langshan into the poultry world was marked by as royal a reception as was ever accorded to any new breed of fowls, and among all but those extreme faddists who are ever on the lookout for a new breed to boom, he has wonderfully retained his popularity.

No breed of fowls can long keep its hold upon the people unless it has something stronger to recommend it than mere color, or a boomer's catalogue or "make-up" of fancied virtues which have no reality in fact.

The color fad is furious while it lasts, but sensible-thinking people soon set it aside, unless accompanied by more practical qualities. The effort to place a certain color upon every popular breed of fowls is no doubt commendable and profitable from the faddist's standpoint, and one marvels at the amazing rapidity with which the work is accomplished. But woe be to the amateur who chooses one of these new creations for his own particular fancy. At the end of the first season's work his yards are full of nondescript birds, a large percentage of them being of no value except for the frying pan. His birds that are best in color will probably be disqualified for feathered shanks, and the birds which have smooth shanks are cut so badly on shape and color that he is ashamed to tell any one what they score.

The very fact that the Langshan has retained his popularity to so great a degree proves that his fame rests upon no such fleeting qualities as color and novelty. He is still largely represented at the leading shows, and is still to be found in the hands of some of the most progressive and enterprising breeders of our day.

He is the most sprightly and early maturing of the Asiatics, rivals the Plymouth Rock in activity, and is by many considered a better forager. He reaches maturity at about the same age as the Plymouth Rock, and reaches broiler age in even better condition than the Rock. I have raised and marketed them together and the Langshan, as a rule, was in better feather and plumper in appearance.

The Langshan invariably excites the admiration of the beholder, and as I have often observed, attracts its full share of attention at the fairs and poultry shows. The bearing of the male is princely and the lustrous green of his plumage is rich and handsome, enhancing the dignity of his carriage. The attire of the female is no less beautiful and her equal in queenly grace and shapely form is hard to find.

The claims made for the good qualities of the Langshan have been verified by careful tests, conducted through a series of years, the results of which have often been published and need not be recited here.

The experiments have proved that the Langshan stands at the head of the winter layers, and in some, at least of the tests, the Langshan hen has laid as large a total number of eggs as some of the so-called laying breeds, which have little to boast of beyond this one quality, and whose carcass when brought to board is a sorry sight for a hungry man. Not so the Langshan, for those who have tried it are able and willing to testify to its good table qualities. It is the winter layer that pays in this climate, and the Langshan carries the palm in this characteristic. I might tell of other good qualities, but this article is already long enough, and I will leave their discussion for another time. I do not mean to infer that the Langshan is the "only pebble," but I do maintain that for a general purpose fowl you will have to hunt a long time to find his equal. Honor and long life to the "Lordly Langshan." — *Louis A. Kline in National Fancier's Journal.*

THE 200-EGG POWER HEN.

How to Breed and How to Feed Her.

BY L. E. KEYSER.

While the average product of the hens of the United States is but 60 eggs each per annum, there are flocks that have, by careful breeding, been brought up to an average of 200, and many where the average is 150 to 175. This difference in production means a difference between profit and loss, success or failure. How to breed the 200-egg power hen is the problem which every poultryman is trying to solve.

Having decided upon the breed, and it should be one well adapted to the climate and surroundings, secure good specimens, and if possible from a known egg strain, if you are to buy new stock. Do not be led into the idea that one breed will lay vastly more eggs than another, for there is really very little difference in the annual production of flocks of laying hens of the different breeds. It is true there are more good layers among the Leghorns and other non-sitting varieties than among the American and Asiatic classes, because they are bred more to the egg shape, yet as poor layers as I have ever seen were Leghorns, while in the same breed I have found some of the best. Note the pullets that begin to lay first, mark them and watch carefully their record during the year. A pullet that lays in winter is most apt to produce winter laying pullets. If it is practicable use trap nests, but if this is not convenient watch your fowls closely and you will be able to distinguish the layers from the drones. A pullet that has made a satisfactory record the first year, should be preserved for breeding, if she is a typical specimen of the breed you are perpetuating. As a hen she will not lay as many eggs as she did the first year, but the egg can be relied upon to produce strong chicks, if she is properly mated, and the pullets from these chicks will be layers.

In establishing an egg strain it is important to have a male line that is bred from layers. Select the largest hen you have, that has shown productiveness above others of her class, and mate her to your best male. Keep her eggs separate and preserve her cockerels for your male line. They will be but slightly related to the other females of your flocks. Perpetuate your male line in this manner, and do not introduce new blood by a change of males. If it is found necessary to introduce new blood, do so from the female side. This is done by procuring one or more pullets from a different strain but of the same breed as your own, breeding them to your male and the females of their get back to their sire. The progeny will then have three-fourths of the blood of the sire and will be safe to introduce into the flock. A direct out-cross, even of the same breeds, is apt to produce many off-colored chicks and destroy the characteristics you have been aiming to perpetuate. In-breeding is not the bugbear many would have us believe, and can be carried on almost indefinitely if done with judgment, yet the occasional introduction of new blood in the manner described is beneficial.

By careful selection from year to year the average of your flock will be greatly increased and in a few years, instead of hens that produce 100 eggs per annum you will have the much coveted 200-egg-power hen.

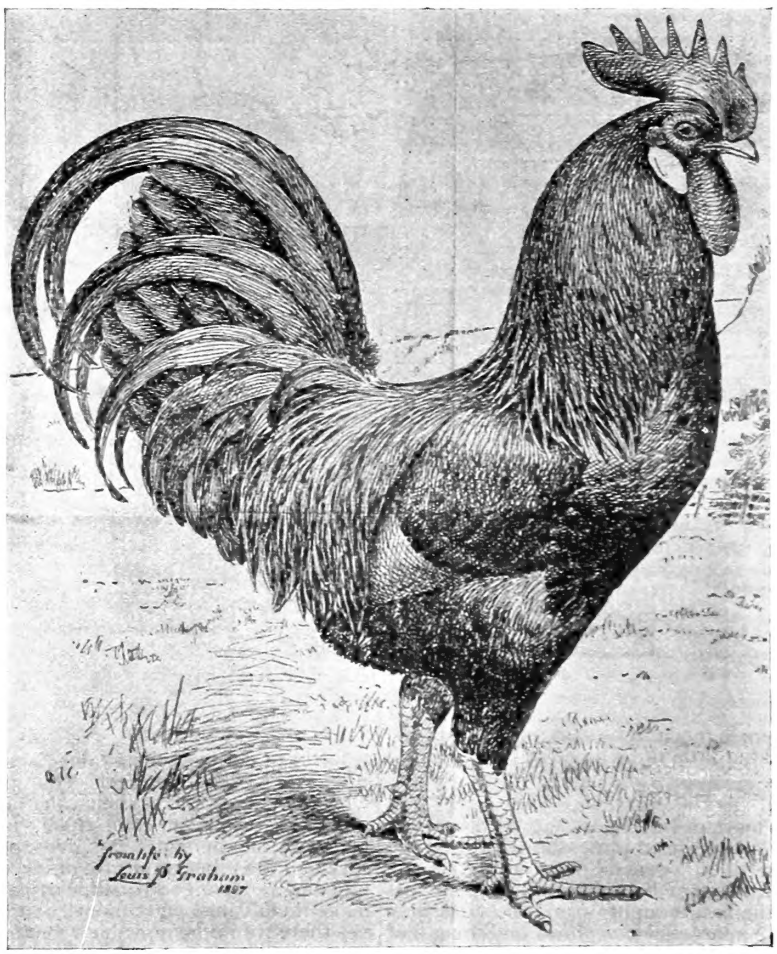
While we can never hope to attain great productiveness without careful breeding, we must also so feed and care for our fowls as to furnish them the necessary material for producing eggs. A ration, the nutritive value of which is about 1 :6 or 1 :7 in winter, and 1 :4 or 1 :5 in summer will be found the most effective. That is, the porportion of carbohydrates and fat should be from four to seven times greater than the protene. A ration of this kind can be prepared almost wholly of grain and its by-products, but it is not as effective as one composed in part of meat. A mash in the morning or at night, with whole grain scattered in the litter, I have found most excellent, and for a mash mixture I have never used anything that equalled the following: One part by weight of wheat bran, two parts No. 1 mill feed (equal parts by weight of corn and oats ground together) one part buckwheat middlings, one part wheat middlings. Where the buckwheat middlings cannot be obtained Chicago gluten meal may be substituted. To one part of cut clover or clover meal steamed or moistened with hot water, add two parts of this prepared mash mixture. Let it stand for an hour or so before feeding or until it is lukewarm.

This ration is almost too narrow—that is, the proportion of protene to the carbohydrates is greater than it should be to be well balanced—but when supplemented by grains the nutritive ratio of which are much wider, it will make the day's ration about right for winter use. In the summer I substitute half the quantity of linseed meal for the buckwheat middlings. The grain ration should be wheat and corn, and barley and buckwheat when they can be obtained. It is better to alternate the grain, feeding one one day and another the next.

Meat in some form should form a portion of the diet of laying hens, and where green cut bone can be had there is nothing better; this should be given in about the proportion of two or three ounces to each hen every other day. Beef scraps or meat meal can be used and in that case it can be placed in the mash, about an ounce to the hen every day.

It is hard to determine the exact quantity to feed as each flock and each individual fowl have different requirements, but by carefully weighing the food and keeping an exact record of the amount supplied, I found that my flock of Plymouth Rocks consumed 58 lbs of whole and ground grain, 15 lbs. of meat, 6 lbs. of clover hay and 10 lbs. of roots each in one year.

With careful breeding, careful feeding and good care, we can hope to attain the much coveted 200-egg-power hen.—*Poultry Standard.*



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Why Incubator Operators Fail.

I have had numerous inquiries from several of my friends and acquaintances recently whose experience in the poulty business dates all the way from three years to six months, asking for advice on various points connected with the business. A majority of them complain of poor hatches, stating that they are at times tempted to give up in despair. I know how to sympathize in a full measure with these poor unfortunates, having traveled this road myself in years gone by, but not being easily discouraged, I kept pegging away, until I have in a great measure learned by experience, dearly bought, how to overcome the stumbling blocks strewn in the pathway of every would-be poultryman.

The average man or woman embarking in the poultry business, in a majority of instances uses very poor judgment. Now, by way of illustration, we will say that here is a man or woman who wishes to engage in poultry culture, and desires to purchase an incubator and brooder. Instead of first taking the advice of some old, reliable poultryman, who has not only had years of experience and is known to have made a success of the business, or consulting the advertising columns of some down-to-date poultry publication as to the merits of the various machines on the market (all of which set forth their many points of superiority, etc.,) he will answer some catch-penny advertisement in his family story paper from some fellow who has a worthless fire-trap to sell, and which he unhesitatingly states will hatch every egg committed to its care, be it good, bad, or inferior (and I regret to say that there are some such humbugs abroad in the land today.)

This very same fellow will (like the immortal "Professor Corbet") picture the enormous profits to be derived from poultry culture, stating at the same time that any person can make an independent fortune out of the business right from the word "go," no previous experience being necessary. Having read these fabulous stories, the poor unfortunate beginner invests perhaps the last dollar he has at his command in one of these fairy hatching machines, which he subsequently finds to be nothing more or less than a worthless fire-trap. Now, on the other hand, had he adopted the plan first suggested and bought a strictly good machine (and there are several such on the market), read the directions over time and again carefully, and then run the machine strictly in line with these instructions, or as much so as it is possible for him or her to do, what a difference would there have been in the result.

I notice, in looking over the books of instructions sent out with incubators of different makes, that the instructions are not sufficiently clear to be interpreted by the ordinary beginner, especially as regards ventilation, moisture, etc. Now, on the other hand, there are a great many beginners that do not read their instructions as carefully as they should, believing it only necessary to maintain a temperature of 103 degrees throughout the entire period of incubation, without regard to moisture, ventilation, etc., not even testing, turning or cooling their eggs daily, which as a matter of fact is absolutely essential to a successful hatch. Not having catered to these requirements of nature, the result is invariably a poor hatch, and in this case, the first impulse of the operator is to condemn the machine and its makers in the bitterest terms, when the fault in a great degree lies with him.

I have been using incubators for some years past, and from the start I was quite successful, especially so in later years, rarely going below 85 per cent of all fertile eggs placed in my machines, even going as high as 95 per cent during April and May. I have tried both kinds of machines, that is, hot water and hot air, and I have invariably gotten the most satisfactory results from the latter. With my incubator (a popular hot air make) I have received excellent results, hatching an unusually large per cent of strong, sturdy, well-developed chicks, which, with ordinary good care, come to stay.

One of the greatest mistakes I find that the amateur is likely to make, is in not testing and cooling his eggs properly, more especially the latter. During the winter and early spring I always cool my eggs twice daily, from fifteen to twenty minutes, never letting them cool below 70 or 75 degrees, taking great care early in the season to see that they do not chill in the least. When testing eggs in the cold months I always keep one end of the tray covered with a blanket or a heavy flannel cloth to prevent the eggs from chilling, while I am testing the other end. During the late spring and early summer I find that a far better hatch will be obtained and the chicks will come out stronger if the eggs are allowed to cool from forty to forty five minutes twice daily. This may appear to some as slightly overdoing the matter, but nevertheless, try it and be convinced.

It seems very hard for some, especially beginners, to thoroughly understand the moisture question, which is one of vital importance. The instructions accompanying a great many makes of incubators provide that the moisture shall be introduced into the machine by means of pans containing water, wet sand, etc., on a certain day, regardless of the location of the machine or the amount of air cell in the egg. The operator will have to study the amount of moisture needed in his locality, which can ordinarily be determined by the size of the air cell. He should, however, not allow himself to become afraid and introduce the moisture too soon. I believe that there are annually more chicks drowned in the shell from fear on the part of the operator than are hatched.

It is generally conceded that an egg contains sufficient moisture to hatch it, ordinarily speaking. In wet weather, or if you have your machine located in a very damp or wet cellar you will rarely ever need supplied moisture. It is always well to examine the eggs carefully about the fifteenth or sixteenth day of the hatch. Should you find that the air cell constitutes, say one-fourth of the entire contents of the shell, you will likely not need any moisture, however, should you notice too much of an air cell, you should close your ventilators slightly, so as to permit the accumulation of a greater amount of the natural moisture of the egg within the egg chamber of your machine.

A young friend of mine hailed me on the street during the early summer and wanted me to go and examine his incubator. He said his chicks, what few were hatching, were coming out in a fearful fix. Upon investigation I found that they were coming out dry, with the stripping on the egg dry. We immediately introduced some moisture into the machine and there was a decided improvement in the remainder of the hatch. It is safe to say that nearly every beginner with his first hatch has experienced this trouble, and I know from personal experience that it is very disheartening, as the chicks present a dried-up shrivelled appearance that is by no means inviting to the eye.

Another serious drawback to the beginner is that as a usual thing he becomes very much excited during the progress of the hatch and wants to be continually opening and closing the doors of the machine in order that he and all his friends and aquaintances in the neighborhood may see what is going on inside, forgetting that in so doing he completely destroys the humidity of the egg chamber and thus seriously interferes with the hatch. Do not open your doors from the beginning to the close of the hatch, and you will get far better results.

A great many people will be heard to say that they carried out the instructions accompanying the machine literally and got very few chicks; furthermore, that artificial incubation is a farce from start to finish, and that the incubator manufacturers are consummate frauds, and a thousand and one other things that are not worthy of repetition. Upon further investigation they found that the whole trouble was due to the fact that their breeding stock was out of condition. Right here let me say that whatever you do, do not feed your breeding birds on soft mashes, yard them in small yards in which not a vestige of green food can be found, and expect fertile eggs. Should eggs from stock so quartered and fed hatch, they would not produce strong, vigorous chicks. On the contrary, if you wish your breeding birds to produce eggs that will hatch good strong chicks feed them altogether on whole grain, scattered in litter, say a foot deep or more, give them cut green bone twice a week, plenty of green food, grit and fresh water, and last but not least keep them free from vermin, and verily you will not be disappointed.

Now, as for the brooder. Let me say that I have tried a number of brooders of different makes, hot air, hot water, pipe systems, etc., but not until two years ago did I find a brooder that came full up to my ideal of what a brooder should be. I bought a popular $5 brooder (hot air) and have found it far ahead of anything that I have ever used. Pipe systems are very much easier to clean, but I do not consider them in every sense of the word practical. To beginners I wish to say, beware of bottom heat brooders. Bottom heat is not in conformity with nature's laws, and therefore should be avoided. In conclusion I wish to say that what I have written is from actual experience and not from hearsay, and I sincerely trust it will be of assistance to those who are about to enter the realms of poultrydom. I am for "better poultry and more of it." — *W. H. Hardin in Reliable Poultry Journal.*

Is the Quince Suited to the Poultry Yard?

Editor Poultryman and Pomologist:

Can you tell me through your paper if the quince is injured or improved by having a flock of chickens or hens kept on the same ground the trees are on?

I. C. G., Leominster, Mass.

Will some reader who has had experience with quince trees in poultry yards answer the above question?

EDITOR.

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The columns of this paper are open to communications concerning anything in which our readers may be interested. Contributions and questions on Poultry or Fruit topics are solicited, and our readers are invited to use the paper as a medium for the exchange of ideas of mutual interest.

NOVEMBER, 1900.

THE FIRST MILESTONE.

With this issue, we close the first year's work of the POULTRYMAN AND POMOLOGIST. The year has been a pleasant one in many respects, and it has pleased us to find that poultrymen in all parts of America were interested in our paper. Our efforts in the line of business have been to increase the circulation of the paper rather than imitate so many of the recent ventures in the field of poultry journalism, by depending upon the advertising patronage for existence. The result of our work has been that our circulation is making healthy gains, while those advertisers who have been with us the past year have found results such that they will continue for another year. We have received several testimonials from advertisers telling of the amount of business received through advertising in the POULTRYMAN AND POMOLOGIST. We have also received letters from our readers telling of the honest treatment accorded them by our advertisers. All these things are gratifying to us and assure us that our plans, though differing from the usual course of new papers, are proving to be the correct ones.

In the reading matter we have endeavored to present matter that would interest and instruct and not to fill our paper with dry, uninteresting accounts of the editor's visit to some poultry farm where he "cornered" the proprietor and talked advertising by the hour, and then wrote a four-page account of this thriving farm in consideration of receiving the contract for a one-inch advertisement at half the published rate. Those things we do not consider to be in our line of business, and as we receive money for subscriptions to the paper feel that the readers have certain rights which a publisher is bound to respect.

Our plans for the coming year contemplate a wider circle of contributors, and the discussion of practical questions of interest to all who are engaged in the pursuits to which our paper is devoted. Our aim is to give our readers a clean paper, one that will bear criticism, and stand on its merits. To enable us to carry out these plans and ideas, we shall need the co-operation of our readers. They can help us by sending subscriptions, by speaking a good word for the paper, by contributing articles for publication, and when answering the advertisements found in our columns, mentioning the paper. All these things are favors that will be duly appreciated. We also have a standing invitation to all to criticize any feature of the paper, for if we see a way to improve it, we want to do so.

To the advertiser of stock and appliances used by poultrymen, we would say that if you have not yet tried our paper as a medium, you are missing an opportunity to reach a large circle of buyers. We have received assurances from our advertisers that this paper has been a paying medium for their business, and if you wish to learn how it paid them, a letter to any of those who have been with us the past year will show you what we have done in this line. That would be a more convincing argument than anything we could say, so we will say no more unless you request it.

"New England, probably, draws more poultrymen desirous of investigating the various methods and systems of up-to-date poultry culture than any other section of this country. It is not strange that this should be the fact. In no other part is the keeping of pure-bred and high-grade stock so general, and while New York, New Jersey and Pennsylvania are great poultry states, the average quality of the stock is not so high. The very head and center of pure bred poultry production lies probably within a radius of fifty miles of Boston, and though the west is making great strides, and the south is reaching out in the right direction, it will be many years before New England ceases to be the attraction for those who are interested in poultry at its best," so says Geo. H. Pollard, in R. P. J.

Right you are Bro. P. And just east of that charmed circle there's a big slice of New England that is not asleep in this matter, and if the time shall come when that "head and center" shall move westward or southward, some of the "Down Easters" may "hang onto" the tail of the beast and stay his progress somewhat.

Prizes for Club Agents.

In order to increase our subscription list during the winter season we shall offer the following prizes in addition to our regular liberal cash commission:

First Prize — A pair of standard bred birds, winner's choice of the following varieties: Barred Plymouth Rocks, White Wyandottes, Black Langshans, White Langshans, Rhode Island Reds, or Rose Comb Brown Leghorns; or will give a two-inch advertisement in this paper six months.

Second Prize — A 50-egg Incubator, or a two-inch advertisement four months.

Third Prize — A cockerel of either of the breeds above named, or a two-inch advertisement three months.

Fourth Prize — A setting of eggs (15) of either variety named, or a one inch advertisement three months.

These prizes are given for the largest clubs and are worth trying for. The winter season is the best time to raise clubs. Visit the poultry shows, or call on your acquaintances, who are keeping poultry or ever intend to do so. They need such a paper as the POULTRYMAN AND POMOLOGIST, and will subscribe for it without any urging.

BOYS AND GIRLS,

here is an opportunity for you to get a start in the poultry business by winning either of the prizes offered. The cash commission alone is good compensation for the time used in this work, and if you are among the winners, the prize may give you a start in business.

We will furnish sample copies for any one who wishes to obtain subscribers on this offer and will mail full particulars to all who apply. The competition will close February 25th and the prize winners will be announced in the March number.

That Poultry Show.

Editor Poultryman and Pomologist:

Quite a good deal has been written in regard to a show to be held in some central place. I think myself that the time is ripe for such a show but I want to ask will the poultry breeders in this state take hold and push. I hold that the success or the failure of a show in this state or in this part of the state depends on the breeders. Will they exhibit in numbers large enough to make such a show pay expenses? If so a show can be be held this winter in a good hall with a good score card judge, in a central place with good express service, and it all lies with them.

No person is willing or able to go into his pocket for a very large amount of coin just for the sake of saying he was one of the officers of such and such a show. I, for one, will say if I am going to drop much money I am going to drop it into stock to improve what I have. Now I say a show can be held and pay all expenses without any one man having to go down into his pocket. If all breeders will only do their part, that is exhibit their birds, such a show will be held and will be a success. We all know it is worth something to have stock scored by a competent judge. It is worth a whole lot more to win a prize at a score card show than to stay at home and think your birds are the real thing. Speak up, brother breeders, and say if you want a show or not. Why not show to the people of other states that Maine can have more than one poultry show.

Maine has better stock than most people are aware of but has been a little slow about showing it. Let's wake up and show it. Have a hummer, one that will make them open their eyes.

A. P. WINSLOW.

In writing to advertisers, mention THE POULTRYMAN AND POMOLOGIST.

PRACTICAL QUESTIONS OF THE DAY.

Are Trap Nests Practicable for the Market Poultryman?

(Written for the Poultrymn and Pomologist.)

There are three objections to the use of trap nests by the market poultryman, either of which, it seems to me, is fatal.

1. They are not absolutely reliable. It is the experience of those who use them that a large number of eggs are found outside the nests on the floor. Even where trap nests are used and the attempt made to keep individual records, there must be more or less "guess work."

2. Trap nests impose an unnecessary cruelty upon laying hens. Under the most favorable circumstances it is a great strain upon a hen to void an egg. After the egg is laid the hen desires to leave the nest and refresh herself with a drink of water; but where a trap nest is used she has to remain a close prisoner until the attendant thinks to come round and release her. I have known hens to remain shut up in trap nest boxes for hours in the hottest days of summer because the hired man forgot all about them.

3. Trap nests take too much time. A man cannot take a hen out of a nest, look at the number on her leg band, and make an entry in his account book, in much less than a minute. Where there are 300 layers it means five hours a day of unnecessary work.

The business-like way is to make the *pen* the unit, and not the individual bird. Suppose a man has for his ideal 200 eggs a year per hen, and keeps 15 layers in a pen. He may expect from this pen a little more than eight eggs a day — say 60 a week. If the egg production falls much below this he should begin to look for the cause. A laying hen is a good advertiser. She lets you know by her coral comb, her talk, and her general up-and-coming appearance that she is attending strictly to business. A man who knows hens, who is round with his hens every day, ought to be able to tell pretty well which ones lay and which do not. If he is in doubt, let him use the testing pen, which I describe in my book,—an inner compartment four feet square, built for just this purpose. Let him put the "suspect" into this pen for a week, feed and water just as he does the rest, and note whether she does or does not lay. A man can get all the benefits of trap nests by using a little common sense without a tithe of the labor, in my opinion.

EDGAR L. WARREN,
Wolfeboro, N. H.

—

The poultry keeper who wishes to increase the egg yield of his flock should use trap nests. In every flock of fowls there are good layers, medium layers, and poor layers. There is one sure way to develop a great egg-laying strain, and that is by finding out positively which are the best layers in the flock, and using eggs from hatching only from these best layers.

WINFIELD DARLING,
South Setauket, L. I., N. Y.

—

I have never used them, as I am away from home from 7 a. m. to 5 p. m., except a short time at noon, therefore could not attend to them.

C. E. DAVIS,
Cumberland Mills, Me.

Some excellent people do not believe in trap nests, and for good reasons. Others do believe in them for better reasons. No laying hen will refuse to lay in the trap nest properly made and located. It may take a man longer to learn how to use them than it does his hens. There isn't a man living that knows so much about his hens that he can't learn more by using trap nests.

Many have an idea that a great deal of time is required to attend to them, and the question at one arises, why?

The man who runs to his hen house every time a hen cackles to release her from "durance vile," or who will not or cannot install a sufficient number of nests in his pens, has not learned how to use trap nests.

It is said that the practical poultryman "learns by observation" to distinguish between the profitable and the unprofitable members of the flock.

While this is true to a somewhat limited extent, the fact has been proven beyond a doubt that the trap nest will give more exact and reliable data than it is possible to obtain without it; and the poultryman who is among his fowls almost constantly, as he must be to "learn by observation," will be able to attend to his trap nests without undue labor.

The poultry keeper who is so situated that he cannot give his flock almost constant attention, is also the one who cannot so readily learn by observation; to him the trap nest is indispensable if he would attain success.

It is a well known fact that a hen will some times go on the nest several hours before she lays and may remain several hours after laying; this frequently occurs when open nests are used. With the trap nests the hen is not confined as long as she stays on the nest voluntarily; her confinement begins when she wants to get out. Some poultrymen who honestly believe that the general use of trap nests is not practical (although they have never tried them) claiming that the confinement of the hens is cruel and would in time prove harmful, might not hesitate to reset a setting hen once, or even twice, utterly regardless of the cruel dissapointments and long deferred hopes of expectant motherhood. A hen that will stay on a nest for three, six, or even nine weeks, incubating eggs, and survive the ordeal, will not be injured by any necessary confinement in a trap nest.

In regard to the effect of this confinement on egg production, I can only say that as far as my experience goes, it has seemed to increase it. Hens that did not lay well as pullets with open nests, laid well their second year with traps.

Hens three years old that used trap nests last year, have laid well this year with the traps still in use.

When I have used traps in any part of my pens and open nests in others, the hens or pullets using the traps have invariably laid better than those using open nests, although receiving the same care. While I am not sure that this is wholly due to the use of traps, I think that it does prove that their use has not been harmful. It is generally conceded things being equal, tame hens will lay better and with greater regularity than those that are nervous and easily frightened. Any breed of fowls, not excepting Leghorns, will become very tame when trap nests are used. I believe that it can be truthfully claimed that the proper use of trap nests will materially increase the egg yield in any flock.

The trap nest has come to stay and some of our highest authorities believe that it will soon be considered a necessity for every properly equipped poultry plant. While beginners are perhaps the best customers for every new poultry appliance, good or bad, many experienced and conservative poultrymen have addopted individual record keeping. Others still hold out and ridicule the idea; but this has always been the case when improved methods of any kind have been advanced, and much adverse criticism has been directly caused by the exaggerated claims made by some trap nest promoters. While various modifications of common animal traps have been used more or less for many years in the vain attempt to solve some of the most difficult problems that confront the poultryman, the practical and accurate trap nest, which reveals so many secrets, annihilates so many popular fallacies and time-honored theories, will ever be remembered in poultrydom as contemporary with the automobile and wireless telegraphy; the legitimate offspring of the closing years of the 19th century. Also remembered will be those indefatigable editors and writers for the poultry press, who have so bravely, ably and unceasingly defended the trap nest, imperfect, undeveloped and unreliable though it has been, against the opposition and ridicule of those who, with less prophetic minds, could not see that it must become the nest of the future.

Whatever may be the fate of the present candidate for the poultryman's favor, the keeping of individual egg records has passed the experimental stage. The system has disclosed possibilities that cannot be ignored. The novice with his trap nests is day by day learning that much of the wisdom of the life-long-experienced poultry keeper is but theory after all.

The man who can foretell the sex of the chick by the shape of the egg; who believes that eggs will hatch more pullets under hens than in incubators; who is rejoiced when he finds a double yolked egg; who always recognizes the pigeon sized egg as the last of some hen's "litter"; who believes that a single service fertilizes but one egg; who knows which of his hens are the best layers and how many they lay; that man does not need to use trap nests, he knows enough already. On the other hand, whoever wishes to become personally acquainted with each and every member of his flock, able at all times to provide for their individual as well as their collective needs, as indicated by the eggs, which often reveal a condition that cannot be ascertained by an examination of the hens themselves; whoever desires to act as timekeeper and accountant for each of the feathered laborers in his service, and be able to reward the dlligent and discipline or discharge the shirks; he who, believing that "like begets like," would wed industry with prolificacy in the breeding season, must use the trap nest.

FRANK O WELLCOME,
Yarmouth, Me.

(Extract from circular.)

—

This question like many others admits of discussion and that there are arguments to be made on both sides may be seen from the opinions here presented.

Personally we have considerable faith in

the trap nest, and believe that while its use by the fancier who can have the privilege of following the pedigree of each chick through a line of high scoring ancestry is enabling him to judge of "which line he shall tie to and which cut clear," it is of even greater advantage to the market poultryman.

But first, what is meant by the term "a market poultryman?"

In the present case we shall consider it as meaning the poultry breeder, farmer, schoolboy, or housewife who is breeding poultry for the sake of the dollars that may be gained from the business; whose ideal is not centered in number of comb serrations, nor stripe in saddle feathers, but consists in hardiness, prolificacy, growth of carcass, and value of product. Perhaps the fancy side may be combined with these utility lines and when we find this we have the bird which is striking the popular fancy, for the shape of comb and color of feather are by the most of us considered as minor points in comparison with those utility characteristics for which the *Gallus Bankiva* became domesticated and improved, and has followed mankind to all parts of the earth. It is the utility quality that a breed possesses that makes it popular, and when it fails to pass on the score of intrinsic merit its days of glory are past, and the men who perhaps championed its cause when the boom was at its height, now show their failing interest by booming other varieties, and leave their late favorite to "the tender mercies of a cruel world."

If the fancier by his knowledge of the laws of breeding is enabled to mate so as to control length of feathers, color of eye, and such other markings as he may desire, cannot the market poultryman afford to study his birds, to learn which are profitable, and which are kept at a loss?

There are drones in every flock, and there are individuals whose work must be just as much above the average of egg production of the flock as that of the drones fall below it. If we consider the pen as the unit, we may entirely lose sight of the product of some of our best specimens, which from being penned with a number whose work is unsatisfactory may be condemned to the block, unjustly convicted by circumstantial evidence, and judged from the bad company in which they have been kept, whereas if their past record could be shown in its true light they would be held up as examples of what might be attained by well directed efforts.

There are a number of other features of the trap nest, besides its use to distinguish the best layers. It often happens that the eggs of certain hens are continually infertile. They may be the best layers, but the average eggs from the flock will not produce their equals, and the incubator is carrying a useless burden when these unfertile eggs are used. Some of our breeders test each hen for fertility of eggs, and it sometimes shows that a change from one pen to another will make a great difference in this respect, as so many males have certain favorites.

The man who breeds for brown eggs ought to know which hens lay the largest and darkest eggs. The trap nest used for even a short season will settle that question.

The trap nests also enable one to learn which hens are the egg eaters, also prevent the crowding on the nest and consequent breaking of the eggs. All these points are of importance to the market poultryman and should be of sufficient consideration to remunerate him for the expense of installing the nests and the time and care necessary to breeding from pedigreed birds. There are great possibilities of improvement not only in egg production but in the meat side of the question as well as in those lines where the skill of the fancier holds sway, and in our opinion the individual matings or individual records of flocks, with the necessary selection of the eggs from the birds whose qualities are desired to be perpetuated is the shortest road to follow if we are striving for improvement.

G. P. C.

"Yes," said the lecturer at the farmer's club, "Some hens are always barren, and as the trap nest shows which hens lay, there is no need of raising chicks from these barren hens."

"CONSTANT READER."

Is Twenty Hens Per Flock the Limit for Profitable Egg Production?

(Written for the Poultryman and Pomologist.)

Whether more than twenty hens can be kept in a flock and secure the most profitable yield of eggs depends on the person who takes care of them and size of quarters provided. If he or she is not afraid of work and will give the fowls good care, that is, proper feed, keep the quarters clean, and always keep the fowls comfortable, I believe more than twenty will be just as profitable as twenty, providing they have the same floor space per fowl. With larger flocks the expense of caring for the same number of hens will be reduced considerably. When the same floor space is given the large flock that is given to the number of small flocks the exercise room per fowl is increased.

A neighbor has for several years kept from 60 to 65 fowls in a flock that have the range of the barn in winter, together with free range in summer. His books show that he sells ten dozen eggs for every hen kept. No account is made of what eggs are used in the family.

I know of a poultryman who keeps about 350 Leghorns, that after the hatching season is over the doors and gates in the house and runs are opened and the hens all run together. They are never outside of the runs. He shipped 105 dozen eggs a week all winter and until late in the summer, besides supplying some private trade around home.

E. T. PERKINS.

Is it Possible to Keep Hens Confined all Summer, and Have Them Lay Well?

(Written for the Poultryman and Pomologist.)

I have not the least doubt but hens that are confined all summer will lay just as many eggs as those on free range, provided they are well cared for. It will cost rather more to care for them when yarded, and one must pay more attention to the feed, but on the other hand we know where to find the fowls and eggs each night, and the hens are safe from foxes, dogs, etc. When they run at large we are apt to lose many eggs as the hens are likely to hide their nests; and on many farms foxes reduce the number of fowls. Exercise must be provided for fowls in confinement, as well as shade, cool water, green food, clean house, and yard room. When these conditions are present, if the hens are bred for egg production, I should not worry about the egg supply.

E. T. PERKINS.

My hens are kept in yards and never have their liberty, and they lay well.

C. E. DAVIS.

An Experience in Fruit Growing.

I am every year planting more of the small fruits, and have this year made quite a large addition to my plantations of tree and bush fruits, says W. H. Jenkins, in *Country Gentleman*. I find nothing so marketable as fine fruit, but to grow it requires much work, and "eternal vigilance" is its cost to the grower. It means liberal fertilizing, thorough cultivation, pruning, thinning, combating insect enemies, etc. I sometimes think that few people have more obstacles to overcome than the commercial fruit and vegetable grower, and perhaps nothing else will tell what there is of a man, better than fruit and vegetable gardening, where he must make a living for himself and family. There are so many conditions that have to do with the making of the crop, that the inexperienced and negligent must very often make failures. From my experience in planting plums, cherries and pears, I find the planting of the trees is only a small part of the work that must be done to obtain from it a profitable crop. Not only should it have almost as frequent and thorough cultivation as any of the garden crops, but attention should be given to pruning, if a well-shaped tree is to be made, when the growth first begins.

Last spring, I planted between 100 and 200 Japan plums, Windsor cherries, and several varieties of pears, on rich ground, and have tried to give them good care. Every few days I go over the trees and pinch off some of the twigs. I think nearly all the pruning on young trees should be done with the fingers, and the surplus growth pinched back before the twigs require a knife to cut them. I pinch off the inside shoots, and try to secure what is called the "open-vase" form, forming the heads within three or four feet of the ground, and keeping an open center. Even these small trees, which have not yet fruited, I find need spraying to keep them perfectly healthy. The bush and cane fruits also require pruning at this time of the year, and to be watched for insect and fungous parasites. I found that the orange rust, a fungous disease, had attacked my blackberries, and some had to be pulled up and burned to prevent its spread.

My strawberries require more work than any other crop—so much so, that if they were not more marketable than anything else I grow, I would give them up, except a bed for family use. This year I grew some very fine berries, and the demand for them was so great that I could hardly begin to supply it. It cost me something, too, to grow these berries. The soil must be highly fertilized, and the plants must be given almost constant cultivation all through the growing season, and then be well mulched early in the winter. The largest berries are grown with the hill or narrow-row system, and with this, heavy mulching is needed to prevent the plants from heaving out in the winter.

Practical Questions of the Day.

In order to keep our paper in closest touch with its thousands of readers who are engaged in the work to which it is

devoted, our aim is to have the readers express their ideas and the results of their own experience and observation concerning some of the subjects under discussion.

We shall publish each month a list of practical questions, and invite our readers, one and all, to contribute their answers to any and all questions.

These answers will be published in the second paper after the question, and we shall hope for a full and free discussion. Our readers are also invited to ask any question of general importance. Perhaps the problem which is puzzling you may have been solved already by some of our readers, and the correct solution will help others as well as yourself. Then let the questions be forthcoming, and give us your answer to those asked by others. The POULTRYMAN AND POMOLOGIST is published in your interests, and we invite you to join with us in improving its quality and extending its influence.

In sending answers we want not only the "yes" or "no," but we want the "how" and the "why," the "which" and the "when." Try the following questions for the third series:

What is the best time to feed the mash?

—

What is the best vegetable for green food?

—

Is caponizing profitable?

—

In feeding animal food, which is preferable the prepared meal or green cut bone?

—

Why do you use "nest eggs"?

QUESTIONS TO BE ANSWERED IN THE DECEMBER NUMBER.

6. Which is the more practical brooder for the poultryman who raises 1,000 to 2,000 chicks — the hot water system, or lamp brooders; and why?

—

7. Does continual egg production through the winter affect fertility of eggs in the spring?

—

8. What are the most essential requisites to strong fertility of the egg?

—

9. What is the best color for a fowl for practical purposes?

—

10. What is the most profitable variety of apple for New England orchardists?

Whole Grains or Ground Food?

Perhaps no portion of the work connected with poultry management gives more disappointment than the preparation of food and the feeding, for the reason that the results do not compensate for the labor.

The beginner starts in with a variety. He lays in a stock of ground oats, cornmeal, bran, middlings, linseed meal, wheat, corn, ground meat, oyster shells, etc., with smaller lots of sulphur, red pepper, and other condiments. He spends enough time mixing food two or three times a day for a small flock to more than buy them two or three times. In winter he must feed his mixture warm and he gives a variety as well as an unlimited supply. He has read about "old farmers" and "fowls roosting in the tree tops," and he wonders why such unenterprising persons continue to adhere to old customs.

But in the meantime our beginner has not looked at the matter from all sides. He may be correct in supposing that the birds should have a variety, but he overlooks some of the natural characteristics of poultry.

What is the gizzard for? Birds in the wild state do not seek soft food particularly, but consume all kinds. The gizzard is an important organ that performs a special function. Deprive it of its duty and it becomes diseased. As the gizzard is a portion of the bird any derangement of that organ effects the whole body. In other words if the gizzard is not in perfect condition the bird is sick.

The gizzard is a marvelous organ. Pound some glass to the size of peas and give it to your birds. It does not harm the gizzard in the least. We have fed glass to fowls hundreds of times, and at the Geneva, N. Y., experiment station Prof. Wheeler used it for weeks. Also, give the birds the hardest and sharpest flint. It does not cause indigestion or injure them. If the gizzard can reduce these hard substances it should have no difficulty with wheat, corn, or other grains. Why should the poultryman pay the miller for grinding his grain, or grind it himself, when the hens are willing and anxious to perform that service because it promotes their health and assists them to follow the law of nature.

Another fact overlooked is that the first process after the fowl is fed begins in the crop. The crop is composed of various muscles, intricately arranged, which can be contracted or expanded at the will of the bird. She controls the amount of food going into the gizzard with the aid of the crop, and she passes the food to the gizzard to be ground only in sufficient quantities to keep the gizzard properly supplied. She never crowds the food forward. The crop is the hopper from which but few grains at a time go to the grinding apparatus. She takes only sufficient water for her purpose, and does not seek to wet the food more than is necessary.

Now try another mode, and kill the hen, if necessary, in order to observe the effects. Mix ground grain with water. If middlings are used the mass will be sticky. In fact, any food rich in gluten will make the mess more or less adhesive. The hen will fill her crop with it because the crop is her store house. She will even eat pieces of rag or rope, and become crop-bound. If she has whole grains they pass on to the gizzard without difficulty. By a movement of the muscles she can measure the amount to pass into the gizzard each time. But with the sticky mass she cannot cut off the exact quantity desired, because the soft food is not as mobile or divisable as grain, and she may force forward a small or large lump according to its adhesiveness. She may send a large piece to the gizzard, where it remains longer than grain, because the muscles of the gizzard have nothing to do. More soft food goes to the gizzard, and a somewhat unnatural forcing process occurs, the gizzard being always full but its action is retarded.

In the meantime, although with a full crop, the hen becomes hungry, because she is not nourished. Sometimes she gets hold of gravel, and manages to force some of it to the gizzard, which stimulates muscular action and a temporary relief results, But the fowl, being hungry, eats more and more, and compacts the food in the crop. The heat of her body, and the extra amount of water forced upon her, causes fermentation in the crop, and the membranes of the crop are then attacked and become diseased

Large livers, indigestion, worms in the gizzard, and susceptibility to colds and diseases, result from the use of too much ground food, whether given dry or damp. The gizzard must perform its part or every other organ suffers.

But must ground food be withheld? How can linseed meal, gluten meal, bran, etc., be given fowls if only whole grains are to be used? Such foods can be allowed, but they should be given as "extras," and not as a portion of the regular diet.

Feed wheat, corn, buckwheat, millet seed and oats whole. If linseed meal and bran are to be allowed, let such meals be two or three times a week, and have them in a crumbly condition.

The proper way to feed ground grain is to use it with finely cut clover hay, grass, or some other bulky material that will render it more digestible. At the same time give whole grains also. It is better to underfeed than to give too much at a meal.

Of course one feeding, or even more, of ground grain, might not result as we state, but if persisted in, the fowl must sooner or later succumb. It is only necessary to reason the matter. Let the gizgard perform its work. Cease working at the mill. You need not omit ground food altogether, but let the main diet be hard and and solid materials.

"Now, Mr. Editor," some reader may say, "you are wrong; hundreds of breeders use ground food and report success; they have done it for years, and now you come out in denunciation of ground and soft food."

We do not object to it. A mess of ground food as an adjunct to whole grains is excellent, but why should an immense amount of labor be performed that is unnecessary? The fowl was made to grind its food, and thrives all the better for so doing. When much ground food is forced on the fowl it is passed too readily to the digestive organs. The fowl really consumes more than may be supposed, and is fat almost before such condition is suspected. The fat is a disease, just as happens with the mechanical stuffing process, which produces enlarged livers, or, to use a better term, liver disease. A human being with such a liver would consider himself unfortunate and also very near the grave.

Make the hens work to get their food and make them grind it. On the range they eat all day, a little at a time, the food being passed to the gizzard in small quantities, and when satisfied the fowl fills the crop and gradually uses the food during the night.

If the crop is worked by the hand when filled with grain or seeds the food can be moved and handled like shot, but when the crop is filled with soft food the mass may be indented with the fingers, retaining the shape given, the substances feeling like soft rubber. If the fowl endeavors to get it to the gizzard it is unable to regulate the quantity. The bird stretches its neck, works the crop from side to side, and plainly shows that it encounters difficulty. It is uncomfortable.

Take a sick hen some day that died from no apparent cause, the crop being full. Open her and the crop will contain food that is in good condition, the gizzard will be full, and she may show no indications of disease. But she has died because nature has rebelled against violation of her laws. The mill-stones were willing to grind, but they became clogged with meal and water and were rendered useless. — *Poultry Keeper.*

The Show Season.

To make hay while the sun shines is all right, and when it can be followed is a sure thing, as they say, for no sun, no hay, no matter how long the grass. Just so with the exhibition of poultry. You may have plenty of fowls and plenty of shows, but the one who looks ahead wins the prizes.

This is the outcome of consideration and forethought, that goes back to the time of mating the fowls, when the motto, "None too good for success," was the guide. Those who keep looking well into the future while contemplating the past are quite apt to avoid making the same mistake over again that so many make, of thinking that a whole flock will be the sure way to succeed.

I should very much prefer to have six eggs from a grand hen, well mated, to a hundred from a promiscuous flock.

The exhibition room is the amateur's school-house. Here he can study the grades of excellence as he finds it selected by the judge, for surely the prize winners seen by all form their ideas of perfection. This influence is almost overpowering, and were it not that there is so very much difference in the quality of prize winners at our many shows, all could have the same chance of knowing of the best. But for all time to come the better specimens will find their way to the higher grade shows, and for this reason it is for the best interest of all that they should have the experience gained from attending our best poultry exhibitions.

We may argue as we will and try to convince ourselves that this way or that way is the best, but of one point we may be absolutely sure, that the best specimen yet seen must wilt in comparison with a better one when they come side by side in the show pen. This being the case, we must admit of an elastic grade of quality that extends to grasp the higher grade, and in so doing simply lops off some of the former credit allowed the other. The real quality of all winners is determined from the company they are shown in. Surroundings have their influence on all conditions in life. The best we have seen or know of forms our ideal.

For these reasons we should add to our knowledge by experience; extend our ability to decide these matters by going where the large number of the better quality are shown; if not in our locality, go where they can be found. Almost every state has one or more large exhibitions, where the best of the locality gather. Visit these and gain the advantage of having seen the best to be found in this locality. Those who have the most information advance, while those who are content with what they have seen usually form a part of the procession whose winnings are "nit." One must keep right up with the times these days or get completely left. There is no branch of the poultry business that advances so fast and changes so much as the exhibition end of it. Those who allow a year or two to get ahead of them will be hopelessly lost when they come again.

WHEN IS MOST BENEFIT GAINED.

We may win for years in our local shows; in fact, may gain at these exhibitions as high scores for our birds as are given at the larger shows. With all this, these prizes have not equal value with like grades gained at the big meetings. Showing the influence such shows have over the breeders at large, we can cite a case of one who was fortunate in winning in the novice classes at Boston last winter. He was overwhelmed with orders all spring, the result of having gone to the big show and placed his birds in the novice classes provided at this show for those who have never won at Boston. All should begin at their local show and advance year by year till they have gained the highest honors.

We must all walk before we run, so must we climb to the higher positions as exhibitors by easy steps of advancement. Far better to advance slowly with specimens we have ourselves produced than to jump into fame with purchased stock. When it is discovered that you produce you own winners of advanced quality each year, you will have a demand for stock that will surprise yourself, for people are fast learning that the place to procure stock that will produce the best is of those who breed their own winners.

We can cite persons who win many prizes at our larger shows, whom we presume never raised a single prize winner. Nor do they care to profit by winning. They simply wish the pleasure of winning an honor they pay well for. To these the real producers can sell their stock at good prices and at the same time retain the position as the producers of the best. To gain the advantage of such purchasers one must come to the front as a producer of the best, for as soon as this name is obtained those who wish to buy winners will hunt you up.

WHY WE SHOULD EXHIBIT.

Those who run a poultry exhibition seldom gain a cent for their trouble. In doing that which benefits the exhibitor, they are often thrown into debt that they should not be compelled to pay. If it was not for the poultry show, fancy stock would have but little value above market stock. It is the poultry exhibition that builds up the fancy. For this reason it is the duty of all to lend their assistance to the building up of their own cause. Don't think for a moment that you are doing the management a favor. It is the exhibitor who gains all that is to be gained of profit from the poultry show.

There is one existing shame in the poultry show business that should be extinct, and that is the small price paid the poultry judge for his work. Simply because some with no ability will act for a small price is no excuse for both management and exhibitors making an effort to fool themselves into believing that prizes won under such conditions will bring benefit. No prizes ever won under an incompetent judge brought to those who gained them any benefit. Better by far not hold an exhibition than to have one that is passed upon by a judge who is not fully competent to do the work.

It often happens that a good, competent man will submit to the surroundings and fill the position of judge at a small price. When compelled to do this it certainly reflects upon both the management and exhibitors who ask for or accept such services at a price far under their real value. It is your duty to select the most competent judges to be had and to pay them well for their work, for in this way only can the fancy be honestly advanced by the influence of your exhibition.—*Ohio Poultry Journal.*

Subscribe for THE POULTRYMAN AND POMOLOGIST, 25 cents per year.

Scovil's Houdans, quality unexcelled.

Poultry Crop of 1900.

Poultryman and Pomologist:

We herewith present our FourthAnnual Report of the Poultry crop in the West. The conclusions arrived at and given below were compiled from inquiries sent throughout Illinois, Iowa, Indiana, Wisconsin, Missouri, Arkansas, Tennessee, Kentucky, Ohio, Michigan, Kansas, Nebraska, Minnesota and the Dakotas, making the most complete and comprehensive report ever attempted by any commission house. It is a reliable and unbiased opinion. We have no interest in the market in giving this information other than Commission Merchants, and have no object in misrepresenting the conditions.

SPRAGUE COMMISSION CO.,
Chicago.

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This year's crop of Poultry indicates, from all the reports received, a smaller supply of Ducks and Geese, about an average supply — possibly a little smaller — of Chickens, and a larger supply of Turkeys than the crop of 1899. Weather conditions have a great deal to do with the production of Poultry, and as the spring was very wet in some sections and dry in others, the crop was somewhat irregular, according to the different conditions. Not alone did dry and wet weather affect Poultry raising, but the extreme hot weather throughout some parts of the country was an important factor, as the reports indicate that the Eggs were much affected and the fertility impaired so that the hatching of young stock was below that of other years, but the quantity of Eggs put out to hatch exceeded that in former years in the case of Turkeys and Chickens which made up for the loss, otherwise there would have been a much larger quantity raised. Of Ducks and Geese the supply is smaller. In the Southern States — Tennessee and Kentucky — the crop is far below an average, estimated fully 30 per cent less, and this was due to the partial failure of the Grain crops in 1899, and high prices locally for feed.

TURKEYS.

The crop of Turkeys will no doubt be heavier this year than last — say about 110 to 115 per cent as compared with last year — an increase of 10@15 per cent, and will be nearer a full crop than in any of the three years preceding. High prices acted as an incentive for farmers to increase their turkey crop. The season on the whole has been a little more favorable and then more Turkeys were carried over on which to build up a larger crop. Advices, however, again indicate that the crop in many sections will be late.

CHICKENS.

As compared with last year's crop, we do not think the supply of Chickens will vary much — possibly they will be smaller on account of the unfertileness of the Eggs and the small supply in the Southern States. It would, perhaps, be fair to place the crop of 1900 at about 100 per cent as compared with last year. Prices for Eggs were not so high during the early part of the season as last year, and this influenced farmers to give more Eggs to the Hens for hatching purposes, but unfavorable causes brought about unfavorable results, and a great many Eggs proved worthless. High prices for Chickens in 1899 also induced farmers to market rather closely, and there were not so

many Chickens left over for hatching purposes.

DUCKS.

The crop of 1900 bids fair to be 20 per cent short of last year. This may be going to extremes, but nearly all reports indicate a falling off, and to place the crop at 80, as compared with last year, may not be out of the way. The crop of 1898 was very large, way above the average of previous years, and for two years there has been an inclination to shut off on the raising of Ducks, and it is likely this will be noticed during the marketing of the present crop, and that more satisfactory prices will prevail than in the past.

GEESE.

In nearly all instances the reports note a further shrinkage in the supply of Geese, and the crop is estimated at 10 per cent less than last year, or about 80 as compared with two years ago. There was a decrease of about 10 per cent last year, making about 20 per cent less than in 1898, when there was about a full average crop.

Quality Makes Value.

In buying any commodity the buyer, if a careful business man or woman, will examine the goods in question to see if they are worth the price asked. And this rule holds good in all live stock transactions. Indeed, in such chattels there are very great reasons why the eye, the ear and the reasoning faculties should all be brought into active play before passing final judgment or handing over the price; and whether the price asked is high or low the same evidence should be sought. Because a thing is dear or high-priced does not prove it valuable, and because a thing may be low in price does not prove it either worthless or a great bargain. One may get a bargain in either class or he may lose on either class of goods.

I have learned by an experience of twenty-three years in buying fine fowls and their eggs that it is no easy matter to select the man from whom you will receive most value for your money. So much depends upon the seller himself, aside from the quality of his stock, that one is often puzzled to make a good choice.

As a simple rule, it may be said that the man of great means who makes the keeping of fine fowls a hobby for pleasure only will ask rather higher prices for same quality of stock than his poorer neighbors. In fact, it often happens that the man of limited means sells all his best birds and still has better birds in his flock than his affluent neighbor who never sells any. I know many such who sell the rich breeder most of his exhibition birds from year to year. And this is all right as far as that part of it goes, The only trouble is, when these men advertise stock for sale, the rank and file of their birds do not come up to the high standard of the birds shown.

It may be said, in passing, that a well-bred fowl of almost any breed imaginable is not dear at two to ten dollars, for if the fowl is sufficiently good to use as a breeder, the price will be earned in a short time. If by any means any such stock is offered at a low price, the bargain should be picked up at once ; and when one has once found a good place to deal it is a good plan to stick to the place as long as he can get what is wanted. The dealer who has sent stock to the party previously can tell the needs and wants of the purchaser better than a new man who knows nothing about your stock or its lines of blood and breeding.

Another point to observe is that it is often better to buy only a few birds and have them of high quality than to buy a lot of stuff and find it only medium or good quality. More headway in the art of breeding will be made if the start is a good one, even though the numbers are small. — *Ohio Poultry Journal.*

Poultry Manure.

One of the best and most available manures is that which our poultry supplies. First of all, it costs no ready money and is an article of value to any farmer who will utilize it. How to save, mix and use this manure has been a study with scores of farmers during the past few years. In nearly every farmer's yard are seen from 100 to 200 fowls, and very often they have no proper shelter and the droppings are lost. Often no thought is given to gathering the manure for fertilizing purposes, and in the spring the owner will pay from $60 to $75 per ton for guano, while the poultry manure that goes to waste on his farm is almost equally rich in plant food and even better than some brands of so-called "pure" guano. Poultry manure has the most value when kept in the dry; its value is also largely dependent upon the kind of food which the fowls eat. As a rule the poultry is given richer food than any other farm stock. Wheat, rye, corn, also scraps from the table add to their fare, hence their droppings must possess considerable fertilizing value. We keep the poultry together in the hennery as much as possible. The floor is kept dry, being covered weekly with ashes obtained at a planing mill at a cost of 15 cents per bushel, Regularly every week it is removed and stored in a dry place shovelled over and enough absorbent added to keep from heating. It is astonishing how much accumulates. If we wish to drill the manure it is sifted; otherwise it is applied from the wagon directly. If farmers who keep poultry and let the manure go to waste would try this plan they would save enough the first year in fertilizer bills to build a poultry house and fence a yard for their private fertilizer factory.—*Chicago Inter-Ocean.*

Ideal Plymouth Rock.

Editor Poultryman and Pomologist:

With this I send electrotype of Ideal Barred Plymouth Rock Female adopted by the American Plymouth Rock Club at its last annual meeting. These cuts answer several purposes, chief among which is that of illustrating the "Standard Shape" Color, etc., of any variety can easily be described in such ways that all can understand and at a glance detect any defect; not so, however, with shape, for no description can so describe it that half a dozen persons will understand it the same. Each would draw their own conclusions and ever after, whether right or wrong, would still believe they were right and labor accordingly. To overcome this and to illustrate the Plymouth Rock Shape as described by the Standard of Perfection so that more uniformity in reality will exist has been the endeavor of the American Plymouth Rock Club. How well we have succeeded is shown by receiving the approval of the expert breeders and judges.

According to the Standard of Perfection the shape sections are valued at 63 and the color at 37 points. Here the value of shape compared with color can readily be seen. This same scale applies to all the leading varieties, making shape paramount in all of them, and still with all this it must be admitted that with many color is considered more important and receives most attention. Can this be due simply to the fact that color is best understood? If this be so let all get together, settle the Ideal question as this Club has done and then work with all might to obtain such shape in the birds. It is in these lines that the members of the American Plymouth Rock Club have been working, and to further this work we request all breeders to join hands with us and lend their aid.

Every interested person should know that a bird of correct shape not only has that advantage, but is the best all-purpose fowl, making the quickest grower, the best broiler or roaster, and will produce the largest number of eggs.

The Club catalogue will be mailed to interested parties for a stamp to pay postage,

Fraternally yours,
H. P. SCHWAB, Sec'y,
American Plymouth Rock Club.
Rochester, N. Y.

Care of Our Orchards.

It must be admitted that there is nothing on the farm which may be made of so much value at so small cost, and which is so much neglected by many farmers, as their orchards. Oftentimes the very thing they do had much better not be done. One thing among the many I will mention is bad ploughing, that is, ploughing deep and close up to the trunks of the trees. By this proceeding nearly all the roots of the tree which run above the bottom of the furrow are broken off or are so marred and bruised as to cause their ruin. This destroys many of the most valuable roots of the tree, they being the very ones that take up and convey the fertilization and a large part of the sap to the treetop, its branches, leaves and fruit.

The effects of this will soon begin to show in the treetop by a general appearance ot decay. The trees will make but very little growth, the ends of the limbs will begin to die, and soon whole branches will follow in the same direction. The ill effects of this practice will last for many years. A few repetitions of this operation will ruin any orchard beyond recovery. The trees that live on live only in part; they will grow up in very different sizes, though none will grow large.

This subject was brought very forcibly to my attention while walking through the orchard of a friend of mine which had been ploughed in the way above described. The ploughing of the orchard is about as necessary as the ploughing of the cornfield, yet never should it be ploughed so deep as to interfere seriously with the roots of the trees. The plough should never go within two or three feet of the trunk of the tree, but the ground around the trunk should be thoroughly spaded up, while all sod, stones, grass and weeds should be cleaned away.

It would be a good proceeding to put a half pound of muriate of potash around and close to the trunk of the tree. Do this and no borer will enter there so long as the potash remains. If the potash is increased to three or five pounds to each tree, according to its size, spreading it

as far out as the ends of the limbs of the tree reach or its roots extend, it will increase the growth and vigor of the tree, enchance the growth and improve the quality of the fruit, and, finally, will cast a deadly shadow over all the insect tribes that enter the soil beneath the trees for winter quarters and for a breeding house in which to pass through their evolutions preparatory to coming forth in a new form in the spring, ready to commit new depredations upon the foliage, blossoms and fruit of the tree.—*I. L. Robinson, in American Cultivator.*

Feathers and Eggs.

The selection of fowls according to their uniform standard of plumage sometimes works harm to the ordinary poultry raiser. The fancy birds of course are judged by their feathers more than by anything else. If these are properly colored and of the right length and silkiness, the pedigree and worth of the birds are decided. This craze for feathers has to a certain extent invaded the barn yard and many farmers refuse to buy new breeds unless the feathers indicate aristocratic origin. It is true that in many cases the feathers are a pretty good criterion.

If a breed with certain excellent characteristics has been bred for years to approximate to a certain type of plumage, it stands to reason that the purest of this class will have feather characteristics about the same. But there are variations in every breed, and exceptions to all rules. If you emphasize the feathers too much, you will be disappointed some day, and find that you have bought feathers instead of eggs.

To a similiar extent the same applies to the general cut and formation of the bird. If a certain breed has a record for egg laying and most of the best birds of that breed have conformed to a standard type of size, shape of head and neck and form of body, we reason that there must be some close connection between the shape and the egg-producing capacity of the birds. There always is, but not to such an extent that one can go to work and breed them and trust that the eggs will come as a natural result. Not by any means. Yet some breeders work on that theory, and some ordinary farmers and poultry raisers lose by listening to them.

The fact is, with due respect for the claims of fancy breeders, a bird has got to be judged a good deal by its own capacities and abilities and indirectly by what its ancestors have achieved. If the bird has a record for laying eggs, and its parents excelled in the same particular, what do we care about feathers and shape. The bird may be as dirty and ugly in appearance as any dun colored, barnyard mongrel type of fowl, and it may be as lacking in form compared to the fancy bred as a washerwoman is compared to a Venus de Milo. We are in the business for a living, and we emphasize feathers and shape only so far as they indicate the true capacities of the birds. The deification of feathers, form and similar external characteristics of fowls does well enough for the fancy breeders, but we poor practical mortals who must work hard for our living must have something else to satisfy us.—*Annie C. Webster in American Cultivator.*

In writing to advertisers, mention THE POULTRYMAN AND POMOLOGIST.

The Next Boston Show.

It is the hope of the management of the Boston show that their first effort in the beginning of the new century will set an example to the entire world of high quality in thoroughbred poultry. We shall spare no pains to advance the interests of all who come or send their stock to our show. We shall offer more money in regular or cash specials, more extended classifications and greater opportunity for the exhibitor than has before been offered.

We will call the attention of all, to the novice classes, which will be provided especially for many of the most popular breeds and in the interest of those who may wish to exhibit at the largest poultry show held in America, but who have a hesitancy to compete in the regular open classes against the long and successful exhibitor. These novice classes are open for entries from any who have never won a first or second prize at our Boston show. Your entries will be cooped in line with the regular open classes; will be judged by the same judges and have the same grade of awards and same cash prizes as the regular classes.

These classes are provided for the benefit of those who desire to compete in open classes at a big show when all the benefits derived from such an exhibition can be gained, and at the same time feel assured of a fair chance as against other new exhibitors, knowing that no one will compete in these classes that has won a first or second prize at Boston.

For show catalogue address,
A. R. SHARP, Taunton, Mass.

Right now is a good time to buy and try an incubator. This is the best time to become acquainted with them and the business of managing them will be understood when regular breeding time comes. —*Ex.*

Personal Mention.

D. P. Shove of Fall River, Mass., the R. I. Red and Houdan breeder, has just made another break and gone — well, not wild, but as a business into Belgian Hares and has added some good ones to his feathered family. He says the demands for both Reds and Belgians show that the people seem to know what goes together for business.

—

September, 1900, at Taunton, Mass., the home of America's Champion Buff Cochins, Scovil's Cochins won first breeding pen, second pair.

—

We have received a copy of the new edition of Clough's Bantam Book, and find that it contains a great deal of practical information on these pleasing pets. All the details of care and management, diseases, etc., are treated by able writers and the book deserves its already wide circulation. Price 15 cents, or with the POULTRYMAN AND POMOLOGIST one year for 35 cents.

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Are you looking for Barred or Buff Plymouth Rocks. I. V. McKenney, West Auburn, Me., has good ones at low prices. (See advt.)

—

C. A. Briggs, Taunton, Mass., breeds White Wyandottes of superior quality. Notice his change of advt., and if you want something choice in this breed, keep his address in mind, or correspond with him before these bargains are taken by others.

—

Charles R. Chase, Newbury, Mass., has a change in his advertisement this month, having some extra fine pigeons of several varieties for sale.

Mr. Chase informs us that from his advertisement in the POULTRYMAN AND POMOLOGIST he has sold stock and eggs in eight different States, and as this is the best medium he has used, has placed a yearly contract. From what we have seen of Mr. Chase's stock we can consistently recommend it to prospective buyers, and his prices are very reasonable for stock of such quality.

BREEDING GEESE.

Our surplus consists of fifteen large heavy male and female Africans over two years old; price $6 to $8 each. Forty fine yearling Africans, mostly ganders, well marked and fit for breeding or showing, at $5 each. Eight large and heavy African ganders, over two years old, for market breeding, at $4 each right now. Twenty-five extra good, early-hatched African goslings at $5 each and ten not quite so good at $4 each. Cheaper ones dressed. Also one or two pairs old Embdens and Toulouse at $15 and $20 per pair, exhibition stock. Two pairs White Chinas at $10 pair. No more Embden or Toulouse young for sale. If you are not suited when they arrive you can return and money back less express. We ship geese safely to Oregon, Montana and Alabama.

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PAWTUCKET, R. I.
Farm, West Mansfield, Mass.

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Buff and . . . White Cochin **BANTAMS**
AND FANCY PIGEONS.

First-class Stock for sale.
Write for prices.

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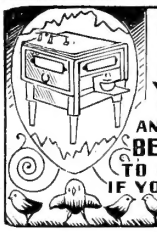

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They are the birds from which I have raised my this year's chickens. Prices very low considering quality. **A. L. MERRILL, 490 Court Street, Auburn, Me.**

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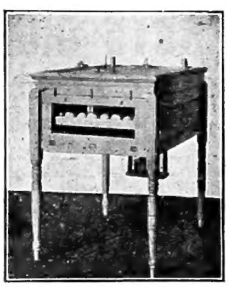

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200 Cockerels
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